

In the claims:

Please cancel claims 1-15 without prejudice and add the following new claims 16-43.

*Sub
Cl*
~~16. A brazed ceramic ring sandwich comprising:~~

~~a first ring comprising ceramic material;~~

~~a second ring comprising titanium attached to said first ring with a gold alloy braze; and~~

~~a third ring comprising titanium attached to said first ring with said gold alloy braze;~~

~~wherein~~

~~said gold alloy braze has a gold content of more than 50 wt%.~~

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~~17. The brazed ceramic ring sandwich of claim 16 wherein said ceramic material~~

~~is selected from the group consisting of aluminum oxide, zirconium oxide, and zirconium oxide with 3% yttrium.~~

2 18. The brazed ceramic ring sandwich of claim ~~16~~ wherein said gold alloy braze comprises 96.4% gold, 3.0% nickel, and 0.6% titanium.

3 19. The brazed ceramic ring sandwich of claim ~~16~~ wherein said third ring comprises Ti-6Al-4V.

~~20. A battery case comprising:~~

~~a cylinder comprising titanium;~~

~~a first end cap welded to said cylinder;~~

~~a second end cap sealed to said cylinder using the brazed ceramic ring sandwich of claim 16; wherein~~

~~said third ring of said brazed ceramic ring sandwich is welded to said cylinder; and wherein~~

~~said second ring of said brazed ceramic ring sandwich is welded to said second end cap.~~

21. The battery case of claim 20 wherein said cylinder comprises Ti-6Al-4V.

22. The battery case of claim 20 wherein said first end cap comprises titanium.

23. The battery case of claim 20 wherein said first end cap comprises Ti-6Al-4V.

24. The battery case of claim 20 wherein said second end cap comprises titanium.

25. The battery case of claim 20 wherein said second end cap comprises a feedthrough hole formed therethrough.

26. The battery case of claim 20 wherein said third ring of said brazed ceramic ring sandwich is welded to said cylinder with a laser weld.

27. The battery case of claim 20 wherein said second ring of said brazed ceramic ring sandwich is welded to said second end cap with a laser weld.

28. The battery case of claim 20 wherein said ceramic material is selected from the group consisting of aluminum oxide, zirconium oxide, and zirconium oxide with 3% yttrium.

29. The battery case of claim 20 wherein said gold alloy braze comprises 96.4% gold, 3.0% nickel, and 0.6% titanium.

30. The battery case of claim 20 wherein said third ring comprises Ti-6Al-4V.

31. A battery comprising:
the battery case of claim 20;
electrodes housed in said battery case; and
electrolyte contained within said battery case.

32. The battery of claim 31 wherein said battery case comprises a positive current carrying element of said battery.

33. The battery of claim 32 wherein said positive current carrying element exhibits more than 3.5 V vs. Li/Li⁺.

34. The battery of claim 31 wherein said battery is a lithium battery.

35. The battery of claim 31 wherein said first end cap is positively charged and said second end cap is negatively charged.

36. The battery of claim 31 wherein said second end cap comprises a feedthrough hole formed therethrough, further comprising a feedthrough pin inserted through said hole and sealed to said second end cap.

37. A battery case comprising:
a cylinder comprising Ti-6Al-4V;
a first end cap comprising Ti-6Al-4V welded to said cylinder;
a second end cap comprising titanium sealed to said cylinder using the brazed ceramic ring sandwich comprising:
a first ring comprising ceramic material;
a second ring comprising titanium attached to said first ring with a gold alloy braze; and
a third ring comprising Ti-6Al-4V attached to said first ring with said gold alloy braze; wherein
said gold alloy braze has a gold content of more than 50 wt%; wherein
said third ring of said brazed ceramic ring sandwich is welded to said cylinder; and
wherein
said second ring of said brazed ceramic ring sandwich is welded to said second end cap.

38. A battery comprising:

a battery case comprising:

a cylinder comprising Ti-6Al-4V;
a first end cap comprising Ti-6Al-4V welded to said cylinder;

~~a second end cap comprising titanium sealed to said cylinder using a brazed ceramic ring sandwich comprising:~~

~~a first ring comprising ceramic material;~~

~~a second ring comprising titanium attached to said first ring with a gold alloy braze; and~~

~~a third ring comprising Ti-6Al-4V attached to said first ring with said gold alloy braze; wherein~~

~~said gold alloy braze has a gold content of more than 50 wt%; wherein~~

~~said third ring of said brazed ceramic ring sandwich is welded to said cylinder; and~~

~~wherein~~

~~said second ring of said brazed ceramic ring sandwich is welded to said second end cap;~~

~~electrodes housed in said battery case; and~~

~~electrolyte contained within said battery case.~~

39. The battery of claim 38 wherein said battery case comprises a positive current carrying element of said battery.

40. The battery of claim 39 wherein said positive current carrying element exhibits more than 3.5 V vs. Li/Li⁺.

41. The battery of claim 38 wherein said battery is a lithium battery.

42. The battery of claim 38 wherein said first end cap is positively charged and said second end cap is negatively charged.

43. The battery of claim 38 wherein said second end cap comprises a feedthrough hole formed therethrough, further comprising a feedthrough pin inserted through said hole and sealed to said second end cap.